



# Air Quality Permitting Technical Analysis

November 27, 2002

**Tier II Operating Permit and Permit to Construct  
No. 055-00048**

**CENTRAL PRE-MIX CONCRETE CO.  
RATHDRUM, IDAHO**

Project No. T2-010115

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Environmental Quality Management, Inc.*

**FINAL PERMIT**

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## ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

CO	carbon monoxide
DEQ	Department of Environmental Quality
EQ	Environmental Quality Management, Inc.
HAPS	hazardous air pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
MACT	Maximum Achievable Control Technology
MMBtu/hr	million British thermal units per hour
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO <sub>x</sub>	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
SIP	State Implementation Plan
SM	synthetic minor
SO <sub>2</sub>	sulfur dioxide
T/hr	tons per hour
T/yr	tons per year
VOC	volatile organic compound

1. **PURPOSE**

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01 Sections 400 through 470, *Rules for the Control of Air Pollution in Idaho* for Tier II operating permits and Sections 200 through 228 for permits to construct.

2. **PROJECT DESCRIPTION**

Central Pre-Mix Concrete Co. (Central Pre-Mix) has requested a name change for PTC No. 055-00048, originally issued to Acme Materials and Construction on February 29, 2000. This will be processed as a facility-wide Tier II operating permit and permit to construct rather than solely a PTC revision. There have been no physical changes at the facility that would affect facility emissions. The emissions sources at the facility are as follows:

Table 1.1 FACILITY EMISSION SOURCES

Permit Section	Source Description	Emissions Controls
3	Hot-mix asphalt plant dryer, Gencor Industries/10332, drum mix, 300-T/hr capacity, natural gas-fired, 85 MMBtu/hr, installed after June 11, 1973	Gencor Industries/ 99 baghouse
4	Rock crushing plant (4 crushers), 400 T/hr (total), installed after August 1, 1985	Water sprays
5	Concrete batch plant, 300 T/hr	Baghouse

3. **FACILITY DESCRIPTION**

The description of this facility and the equipment regulated in the permit have not changed since the issuance of the original PTC in 2000. For facility and equipment descriptions, refer to the technical memorandum dated February 29, 2000, written by Bill Rogers, DEQ Air Quality Engineer.

4. **SUMMARY OF EVENTS**

October 31, 2001      DEQ received a request from Central Pre-Mix for a name change on PTC No. 055-00048.

May 28, 2002        DEQ deemed the application complete.

August 22, 2002     DEQ issued a proposed permit for public comment.

September 25, 2002- The public comment period was held. Comments were received and  
October 24, 2002     responses have been prepared.

5. **PERMIT HISTORY**

The following is a summary of the permit files available to EQ:

February 29, 2000      A PTC was issued that limited the facility to Synthetic Minor status for purposes of Tier I permitting.

6. **DISCUSSION**

1. **Emissions Estimates**

The emission calculations for criteria air pollutants have not changed since the issuance of the PTC on February 29, 2000. For emission estimate information for this facility, refer to the technical memorandum dated February 29, 2000, written by Bill Rogers, DEQ Air Quality Engineer.

2. **Modeling**

Modeling for the criteria air pollutants as presented in the September 11, 1998, technical memorandum by Bill Rogers is still valid.

3. **Area Classification**

Central Pre-Mix is located in Rathdrum, in Kootenai County, which is in Air Quality Control Region 62. Kootenai County is classified as attainment or unclassified for all federal and state criteria air pollutants.

4. **Facility Classification**

The plant is not a major facility as defined in IDAPA 58.01.01.006.55 or 008.10. It is not a designated facility as defined in IDAPA 58.01.01.006.27. The facility is classified as a SM source because actual and potential emissions of regulated air pollutants are less than 100 T/yr only if it complies with the federally-enforceable emission limits in the permit.

5. **Regulatory Review**

This operating permit is subject to the following permitting requirements:

- |                                    |   |
|------------------------------------|---|
| a. <u>IDAPA 58.01.01.401</u>       | Tier II Operating Permit                        |
| b. <u>IDAPA 58.01.01.403</u>       | Permit Requirements for Tier II Sources         |
| c. <u>IDAPA 58.01.01.404.01(c)</u> | Opportunity for Public Comment                  |
| d. <u>IDAPA 58.01.01.404.04</u>    | Authority to Revise or Renew Operating Permits  |
| e. <u>IDAPA 58.01.01.406</u>       | Obligation to Comply                            |
| f. <u>IDAPA 58.01.01.470</u>       | Permit Application Fees for Tier II Permits     |
| g. <u>IDAPA 58.01.01.625</u>       | Visible Emission Limitation                     |
| h. <u>IDAPA 58.01.01.650</u>       | General Rules for the Control of Fugitive Dust  |
| i. <u>40 CFR 60, Subpart I</u>     | NSPS for Asphalt Concrete Plants                |
| j. <u>40 CFR 60, Subpart OOO</u>   | NSPS for Non-metallic Mineral Processing Plants |

## 6. Permit Conditions

All conditions from the February 29, 2000, PTC, including the throughput limits, have been retained. The format has been changed to correspond with DEQ's latest format for Tier II permits.

Performance testing for PM<sub>10</sub> emissions at the HMA stack has been included in this permit. PM testing has already been conducted in 1999 which demonstrated compliance with the NSPS standard for PM of 0.04 gr/dscf. PM<sub>10</sub> testing is required to be conducted on the HMA plant dryer stack for this facility at least once every five years. The primary reason for this requirement is because the facility is a synthetic minor source with potential emissions of PM<sub>10</sub> at 87 tons per year. For purposes of demonstrating compliance with their synthetic minor limit, the plant is required to conduct routine stack testing which will be used in conjunction with onsite inspections to perform a full compliance evaluation of the facility at least once every two years. Since the last PM test was conducted in 1999, the next PM<sub>10</sub> test is required to be conducted within 24 months of permit issuance which falls within a five year cycle between testing.

### Other Changes Made

Emission limits (lb/hr. and T/yr) for the asphalt dryer have been added for PM, PM<sub>10</sub>, CO, and NO<sub>x</sub> based on the calculations in the February 29, 2000 PTC. Limits were set for each pollutant with potential emissions that exceeded 10% of the significant emission rates at IDAPA 58.01.01.006.92. Compliance with the lb/hr emission limits for PM and PM<sub>10</sub> will be demonstrated by source testing as described above. Compliance with the CO, NO<sub>x</sub>, and annual PM and PM<sub>10</sub> emission limits will be ensured by compliance with the prescribed throughput limits.

## 7. AIRS

**AIRS/AFS FACILITY-WIDE CLASSIFICATION\* DATA ENTRY FORM**

AIR PROGRAM	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	TITLE V	AREA CLASSIFICATION
POLLUTANT							A - Attainment U - Unclassifiable N - Nonattainment
SO <sub>2</sub>	B						A
NO <sub>x</sub>	B						U
CO	B						U
PM <sub>10</sub>	SM					SM	U
PM (Particulate)	SM		SM			SM	A
VOC	B						U
THAP (Total HAPs)	NA						NA
			APPLICABLE SUBPART				
			I, 000				

\* AIRS/AFS Classification Codes:

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For NESHAP only, class "A" is applied to each pollutant which is below the 10 T/yr threshold, but which contributes to a plant total in excess of 25 T/yr of all NESHAP pollutants.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).

7. **FEES**

Fees apply to this facility in accordance with IDAPA 58.01.01.470. The facility is subject to permit application fees for Tier II operating permits of \$500, which was paid on 8/22/02.

8. **RECOMMENDATIONS**

Based on the review of the application materials and all applicable state and federal regulations, staff recommends at DEQ issue a final Tier II operating permit and Permit to Construct to Central Pre-Mix. An opportunity for public comment on the air quality aspects of the proposed permit was provided in accordance with IDAPA 58.01.01.404.01.c.

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CC: Tom Harman, Coeur d'Alene Regional Office